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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/404,098	02/24/2012	Juha Henrik Arrasvuori	042933/414992	7854

10949 7590 05/02/2017

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ART UNIT	PAPER NUMBER
2697	

NOTIFICATION DATE	DELIVERY MODE
05/02/2017	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JUHA HENRIK ARRASVUORI
and PETER ESKOLIN

Appeal 2016-008141
Application 13/404,098
Technology Center 2600

Before: HUNG H. BUI, KARA L. SZPONDOWSKI, and JOHN R. KENNY, *Administrative Patent Judges*.

SZPONDOWSKI, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1, 3–7, 9–15, and 17–29. Claims 2, 8, and 16 have been cancelled. Appeal Br. 15, 17, 20. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

STATEMENT OF THE CASE

Appellants' invention is directed to a method and apparatus for presenting multi-dimensional representations of an image dependent upon the shape of a display. Spec. ¶ 1. Claim 1, reproduced below with the disputed limitations in *italics*, is illustrative of the claimed subject matter:

1. A method comprising:

causing a first, multi-dimensional representation of an image to be presented upon a display in an instance in which the display has a first shape, wherein the display defines a z-axis extending perpendicular to the display in a planar configuration;

causing a second, multi-dimensional representation of the image to be presented upon the display in an instance in which the display has a second shape, different than the first shape, wherein the second, multi-dimensional representation has a different dimensionality than the first, multi-dimensional representation; and

determining a shape of the display such that a corresponding representation of the image is caused to be presented in response thereto, wherein determining the shape of the display comprises determining a degree to which the display is bent, and wherein *causing the second, multi-dimensional representation of the image to be presented comprises causing the image to be represented along the z-axis in a manner that corresponds to the degree to which the display is bent* such that the second, multi-dimensional representation of the image that is caused to be presented in response to a lesser degree of bending in a first direction extends along the z-axis to a different extent than the second, multidimensional representation of the image that is caused to be presented in response to a greater degree of bending in the first direction.

REJECTIONS

Claims 1, 3–7, 9–15, and 17–29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Choi et al. (US

2010/0056223 A1; published Mar. 4, 2010) ("Choi") and Tziortzis et al. (US 2004/0212588 A1; published May 10, 2012) ("Tziortzis").

ISSUE

Dispositive Issue: Did the Examiner err in finding Choi and Tziortzis teach or suggest "causing a second, multi-dimensional representation of the image to be presented upon the display in an instance in which the display has a second shape, different than the first shape, wherein the second, multi-dimensional representation having a different dimensionality than the first, multi-dimensional representation," and "causing the image to be represented along the z-axis in a manner that corresponds to the degree to which the display is bent," as recited in independent claim 1, and commensurately recited in independent claims 7 and 15?

ANALYSIS

In support of the obviousness rejection of claims 1, 7 and 15, the Examiner relies on Choi to teach the disputed limitations, and finds the enlarged portion of Choi is "extended in the z direction and thus it does not remain a two dimensional representation but a representation extended in the third, Z, dimension. It is clear from Fig. 11 and the corresponding Par. 0140 that the extension of the image is in a perpendicular, i.e. Z, direction from the display screen." Ans. 10; *see also* Final Act. 3–5.

Appellants contend Choi does not teach "any change in dimensionality" because "Choi illustrates a portion of a two dimensional representation being enlarged in response to bending of the display[,] but "the enlarged portion remains a two-dimensional representation in the same

manner that the image was two-dimensional prior to the display being bent." Appeal Br. 9. Appellants argue Choi "merely depicts a portion of the image being resized, e.g., enlarged and repositioned, e.g., in a curved or stretched manner." *Id; see also* Appeal Br. 10. Similarly, Appellants contend Tziortzis "only discusses the flexing of the display causing a change in the magnification of the image with the image remaining two-dimensional." Appeal Br. 11. Appellants argue neither reference teaches or suggests "that the image is presented in a manner that causes the extension of portions of the image along the z-axis to be different as a result of the bending of the display." *Id.*

We are persuaded by Appellants' arguments. Choi describes extending or reducing the size of a part of a web data displayed on a display region when part of the display region is bent. Choi ¶¶ 138–142, Fig. 11. Similarly, Tziortzis describes using a flexible display to control the magnification or size reduction of the image presented on the display. Tziortzis Abstract; *see also* Tziortzis ¶¶ 48, 49, Fig. 5.

The claim recites "a z-axis *extending perpendicular to the display* in a planar configuration" and "the second, multi-dimensional representation *has a different dimensionality* than the first, multi-dimensional representation" and "causing the image to be represented along the z-axis." We agree with Appellants that "the bending of the display in Choi may change the dimensionality of the physical display," (Reply Br. 2), but bending or flexing the display does not change the *dimensionality* of the representation of the image. Although bending or flexing the display may result in a change in the appearance of the image through magnification or reduction in size, the images in both Choi and Tziortzis remain two-dimensional images.

Further, when the display is bent or flexed, the images in Choi and Tziortzis do not extend perpendicular to the display along the z-axis. *Compare Cho*i Fig. 11 and Tziortzis Fig. 5 *with* Spec. Figs. 4, 6.

Accordingly, we are persuaded the Examiner erred. Because we agree with at least one of the arguments advanced by Appellants, we need not address Appellants' other arguments. We, therefore, do not sustain the Examiner's 35 U.S.C. § 103(a) rejection of independent claims 1, 7, and 15. For the same reasons, we do not sustain the Examiner's 35 U.S.C. § 103(a) rejection of dependent claims 3–6, 9–14, and 17–29.

DECISION

For the above reasons, the Examiner's rejection of claims 1, 3–7, 9–15, and 17–29 is reversed.

REVERSED